NAVAJO TRIBAL UTILITY AUTHORITY

INTEGRATED RESOURCE PLAN

THIRD FIVE-YEAR UPDATE

October 2012

Table of Contents

Page #

Profile Data

The Navajo Tribal Utility Authority ("NTUA" or "the Authority") was created in January 1959 by the Navajo Tribal Council ("NTC") for the purpose of bringing electric service to the Shiprock, New Mexico portion of the Navajo Nation. A few years later, the NTC determined to delegate to NTUA the overall responsibility for operating, maintaining and promoting utility services throughout the Navajo Nation. These services included electricity, natural gas, photovoltaic, water and wastewater treatment. In 1965, NTUA was reorganized to its current form, with a Management Board and General Manager being responsible for operations and management of the Authority.

The Navajo Nation covers 25,351 square miles in the southwestern United States, specifically the Four Corners region of northwest New Mexico, northeast Arizona and southeast Utah. Within these three states, six counties fall within the boundaries of the Navajo Nation. NTUA has operations in each of these counties, with its headquarters located in Fort Defiance, Arizona. Other offices are also located in:

Shiprock, NM	Kayenta, AZ	Dilkon, AZ
Crownpoint, NM	Red Mesa, AZ	Chinle, AZ
Nageezi,NM	Tuba City, AZ	Fort Defiance, AZ

Roughly half of the Nation's lands have an arid desert climate, with another third having an intermediate steppe climate, and the remainder having a cold, humid climate. As might be anticipated with pinnacles and canyons to low-laying plains, prairies, rolling hills, and tabletop mesas. A map of the NTUA Service area is provided in **Appendix A**.

In 2011, the Authority served electricity to approximately 40,000 customers with 33% of total sales going to industrial class, 30% to residential customers, 21% to public buildings, 11% to commercial customers, 2% to the interdepartmental class, 2% to security lights and less than 1% to the irrigation and Oil & Gas classes. The policies for service, rates and taxes for power provided by NTUA to its customers are determined and set by its Management Board. Copies of NTUA's current rate schedules are attached as **Appendix B**.

NTUA's current Management Board and relevant contact persons are detailed below.

- **<u>Management Board</u>**

  Sidney Bob Dietz II, Chairperson of the Management Board
  Belinda P. Eriacho, Vice-Chairperson
  Wilson Ray, Sr., Member
  William H. Clagett, Member
  Jack Conovaloff, Member
  Vacant, Member
  Vacant, Member

- **Contact Persons**

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NTUA is a preference customer for Colorado River Storage Project ("CRSP" or "SLCA/IP") power from Western Area Power Administration ("Western"). The Authority also purchases resources from Tucson Electric Power Company ("TEP"), Rocky Mountain Power, and Continental Divide Electric Cooperative, Inc., ("CDEC") for resale to utility customers. In addition, the Authority has contracts with 13 Native American Organizations to provide benefit to them resulting from their Firm Electric Service Contracts with Western. The Agreements entered into with each organization provide that NTUA shall be designated responsibility for complying with the duties of their Firm Electric Service Contracts, including the responsibility for compliance with Integrated Resource Plan requirement for each organization. The organizations with which NTUA has agreements include:

Cocopah Tribe	Pascua Yaqui Tribe
Havasupai Tribe	San Carlos Tribe
Hopi Tribe	Tonto Apache Tribe
Hualapai Tribe	Yavapai Apache Tribe
Pueblo of Isleta	Yavapai Prescott Tribe
Las Vegas Paiute Tribe	Yomba Shoshone Tribe
Paiute Indian Tribe of Utah	

NTUA believes that this Integrated Resource Plan, which NTUA is submitting to Western, will provide and meet the basic requirements for Integrated Resource Planning for these Tribal organizations with which NTUA has crediting arrangements.

NTUA has transmission agreements with Western, Public Service Company of New Mexico ("PNM"), Arizona Public Service Company ("APS") and Tucson Electric Power Company ("TEP"). The power and energy from Western are transmitted over the CRSP transmission system to NTUA's Shiprock, Kayenta and Long House Valley Substations. The power and energy from TEP are delivered to multiple NTUA substations using the transmission systems

of TEP, APS, PNM and NTUA's own sub-transmission facilities. The resources from Rocky Mountain Power are delivered to NTUA's Red Mesa and Mexican Hat Substations. The resources from CDEC are delivered to NTUA's Standing Rock and Barth-Lake metering points, Crownpoint and Houck Substations. From the substations, the power and energy are distributed to the customers of NTUA over distribution facilities owned and operated by the Authority.

The current projection of NTUA loads for the upcoming two-year and five-year periods does not indicate that additional resources are needed. With current contract entitlements in place for the five-year planning period, forecasted growth is such that additional resources are not needed at this time. Therefore, NTUA will use its current entitlements of CRSP and TEP resources to meet its projected loads through the five-year planning period, with supplemental purchases from Rocky Mountain Power and CDEC as necessary. Although the need for additional resources within the planning period is not anticipated at this time, if and when a cost-effective opportunity for new generation resources arises, NTUA expects to pursue the resources to the extent practicable.

NTUA Goals and Objectives

- Provide Safe and Reliable Water, Natural Gas, Wastewater Treatment, Photovoltaic and Electric Power to the Navajo People at the Lowest Practicable Cost, Consistent With Sound Business Principles.

- Enhance Customer Financial Stability by Providing Services which Enhance Standards of Living and Provide Long-Term Stability in Water, Natural Gas, Wastewater Treatment, Photovoltaic and Electric Power Rates.

Competitive Situation

- **NTUA Contract Information**

  Western Area Power Administration -- SLCA/IP Contract
  Western Area Power Administration -- Transmission Exchange Agreement
  Tucson Electric Power Company -- Wholesale Power Supply Agreement and Transmission Agreement
  Arizona Public Service -- Transmission Agreement
  Public Service Company of New Mexico -- Transmission Agreement
  Rocky Mountain Power -- Power Supply Agreement
  Continental Divide Electric Cooperative, Inc. -- Power Supply Agreement

- **Regulations Applicable to NTUA**

  Energy Planning and Management Program (EPACT ’00)
  National Electrical Safety Code (NESC)
  National Electric Code (NEC)
  National Fire Protection Agency Manual (NFPA)
  Rural Development Utilities Program (RDUP) - formerly Rural Utility Services (RUS)
  Occupational Safety and Health Act -- Navajo Tribe
  Environmental Protection Agency -- Navajo Tribe
  NTUA Electric Construction and Specifications Manual
  American Water Works Association (AWWA)
  Department of Transportation -- Natural Gas

- **Regulation Applicable to NTUA Customers**

  NTUA Tariff

- **Competition with NTUA Service**

  Arizona Public Service
  Continental Divide Electric Cooperative, Inc.
  Jemez Mountains Electric Cooperative, Inc.
  Rocky Mountain Power

Load and Resource Information

- **Historical and Five-Year Load Forecast:**

  In 2009, the Authority produced its most recent Power Requirements Study (“PRS”). The PRS was designed to forecast the energy and non-coincident peak demand requirements of NTUA for the time period of 2009 to 2030, based upon the analysis of past and present day’s loads. The results of this study indicated that over the past ten years NTUA’s electric demands have grown at an average annual rate of 1.8 percent per year. Additionally, the actual number of customers served by the Authority has increased at a rate of about 1.6% per year. As a result of the PRS findings, NTUA assumed that for the purposes of forecasting for the five-year planning period, the growth in the Authority’s load would remain relatively the same. A new PRS is scheduled to be completed within the next year and will provide the Authority with updated data to use in forecasting growth over the five-year planning period. The following table details the Authority’s historical and forecasted loads.

NAVAJO TRIBAL UTILITY AUTHORITY
TOTAL REVENUE PRODUCING CUSTOMERS
BASE LINE ECONOMIC AND WEATHER FORECAST
UPDATED THROUGH 2011

	YEAR	Number of Customers	Customer Growth Rate %	KWH sold	Sales Growth Rate %	%Loss Factor	Purchased Power	Purchased Power Growth Rate %	Peak Demand	Peak Demand Growth Rate %	Average Annual Load Factor	Total Energy Per Customer
	1990	22,464		495,846,468		8.46%	541,682,308		106,323		53%	22,073
	1991	23,668	5%	520,660,188	5%	7.73%	564,255,262	4%	109,570	3%	54%	21,998
	1992	24,853	5%	516,213,528	-1%	8.23%	562,492,349	0%	110,226	1%	53%	20,771
	1993	25,833	4%	502,073,753	-3%	8.37%	547,959,819	-3%	107,938	-2%	53%	19,435
	1994	26,763	4%	501,341,503	0%	8.67%	548,911,916	0%	107,122	-1%	53%	18,733
	1995	27,612	3%	526,431,652	5%	8.99%	578,433,841	5%	109,170	2%	55%	19,065
	1996	28,499	3%	535,296,655	2%	7.21%	576,870,490	0%	110,178	1%	55%	18,783
	1997	29,366	3%	592,001,171	11%	6.62%	633,988,433	10%	113,887	3%	59%	20,159
	1998	29,976	2%	599,324,014	1%	6.72%	642,485,697	1%	111,367	-2%	61%	19,993
	1999	30,930	3%	597,030,009	0%	6.98%	641,822,709	0%	118,956	7%	57%	19,303
	2000	32,488	5%	634,380,890	6%	6.71%	680,024,631	6%	114,757	-4%	63%	19,527
	2001	33,787	4%	658,107,030	4%	2.56%	675,375,263	-1%	108,253	-6%	69%	19,478
	2002	35,932	6%	611,196,339	-7%	14.77%	717,115,180	6%	111,909	3%	62%	17,010
	2003	37,044	3%	649,465,370	6%	12.22%	739,899,166	3%	113,886	2%	65%	17,532
	2004	37,423	1%	725,309,617	12%	5.58%	768,157,612	4%	129,838	14%	64%	19,381
	2005	38,046	2%	714,437,390	-1%	5.30%	754,400,228	-2%	128,279	-1%	64%	18,778
	2006	38,177	0%	568,601,728	-20%	9.34%	627,155,955	-17%	112,080	-13%	58%	14,894
	2007	38,658	1%	552,545,723	-3%	11.69%	625,694,014	0%	120,537	8%	52%	14,293
	2008	38,583	0%	576,512,701	4%	10.28%	642,563,807	3%	132,935	10%	50%	14,942
	2009	38,785	1%	611,588,872	6%	10.88%	686,268,335	7%	137,098	3%	51%	15,769
Historical	2010	39,414	2%	645,054,123	5%	8.79%	707,194,909	3%	138,983	1%	53%	16,366
	2011	39,761	1%	676,670,277	5%	7.62%	732,511,717	4%	131,616	-5%	59%	17,018
Forecast	2012	40,556	2%	696,970,385	3%	7.62%	754,487,069	3%	135,564	3%	59%	17,185
	2013	41,367	2%	717,879,497	3%	7.62%	777,121,681	3%	139,631	3%	59%	17,354
	2014	42,195	2%	739,415,882	3%	7.62%	800,435,331	3%	143,820	3%	59%	17,524
	2015	43,039	2%	761,598,358	3%	7.62%	824,448,391	3%	148,135	3%	59%	17,696
	2016	43,899	2%	776,830,325	2%	7.62%	840,937,359	2%	151,098	2%	59%	17,696
	2017	44,777	2%	792,366,932	2%	7.62%	857,756,106	2%	154,120	2%	59%	17,696
	2018	45,673	2%	808,214,271	2%	7.62%	874,911,228	2%	157,202	2%	59%	17,696
	2019	46,586	2%	824,378,556	2%	7.62%	892,409,453	2%	160,346	2%	59%	17,696
	2020	47,518	2%	840,866,127	2%	7.62%	910,257,642	2%	163,553	2%	59%	17,696
	2021	47,993	1%	857,683,450	2%	7.62%	928,462,794	2%	166,824	2%	59%	17,871
	2022	48,473	1%	874,837,119	2%	7.62%	947,032,050	2%	170,161	2%	59%	18,048
	2023	48,958	1%	892,333,861	2%	7.62%	965,972,691	2%	173,564	2%	59%	18,227
	2024	49,448	1%	910,180,538	2%	7.62%	985,292,145	2%	177,035	2%	59%	18,407
	2025	49,942	1%	928,384,149	2%	7.62%	1,004,997,988	2%	180,576	2%	59%	18,589
	2026	50,441	1%	937,667,990	1%	7.62%	1,015,047,968	1%	182,381	1%	59%	18,589
	2027	50,946	1%	947,044,670	1%	7.62%	1,025,198,448	1%	184,205	1%	59%	18,589
	2028	51,455	1%	956,515,117	1%	7.62%	1,035,450,432	1%	186,047	1%	59%	18,589
	2019	51,970	1%	966,080,268	1%	7.62%	1,045,804,936	1%	187,908	1%	59%	18,589
	2030	52,490	1%	975,741,071	1%	7.62%	1,056,262,986	1%	189,787	1%	59%	18,589

See **Appendix C.1** for a summary of the historical load information as well as a graphical illustration of how NTUA schedules its resources to cover its load in a typical year.

- **Load Profile Information**

For 2011, the energy sales for the authority were divided among the customer classes in approximately the following manner:

Industrial – 33%
Residential –30%
Public Buildings – 21%
Commercial –11%
Interdepartmental – 2%
Security Lights –2%
Irrigation, Oil & Gas - < 1%

See **Appendix C.2** for a graphical representation.
Detailed below is a summary of the historical energy sales by each customer class for the past ten years.

HISTORICAL ENERGY SALES BY CUSTOMER CLASS (KWh)

YEAR	INDUSTRIAL	RESIDENTIAL	PUBLIC BUILDINGS	COMMERCIAL	INTER DEPARTMENT	SECURITY LIGHT	Oil & Gas	IRRIGATION
2001	309,875,765	137,480,048	104,760,454	87,660,573	13,785,181	8,286,270	-	1,634,979
2002	303,182,427	146,033,742	125,256,110	61,454,162	13,128,158	8,889,475	-	1,638,191
2003	297,269,639	157,717,656	133,039,952	77,059,743	12,876,757	9,430,265	-	1,616,288
2004	313,034,500	165,395,644	120,577,828	74,805,175	14,096,068	9,624,613	3,873,132	1,612,824
2005	302,845,669	167,743,280	121,169,388	76,247,200	13,963,966	9,680,491	2,098,426	1,797,320
2006	187,487,722	176,732,272	128,583,081	78,440,905	14,585,840	10,294,428	1,938,136	1,974,351
2007	179,181,143	177,083,390	126,461,629	82,043,843	14,185,737	9,764,807	1,699,752	1,826,886
2008	149,791,825	183,212,710	131,411,386	83,925,586	15,211,48	9,725,345	1,526,503	1,707,862
2009	184,745,794	186,078,949	136,966,326	74,211,088	15,034,330	10,035,540	2,517,738	1,999,107
2010	202,653,159	200,897,845	145,640,424	67,820,474	15,608637	10,146.410	2,359,828	1,950,397
2011	221,195,271	203,886,748	146,460,290	75,685,129	15,959,638	10,385,071	1,151,311	1,946,819

- **Supply Side Resources**

NTUA anticipates that current resources under contract will be sufficient for the Authority to meet its monthly power and energy requirements through the short-term and long-term planning periods. In 2004, NTUA began receiving an additional allotment of CRSP power due to the remarketing of CRSP resources for Native American entities; this additional CRSP resource displaced TEP resources currently

under contract through 2015. Detailed below are the Authority's current contractual commitments:

Pre-2004 SLCA/IP Capacity and Energy at Cudei, Kayenta and Longhouse Valley Interchange

- Summer Season: 21.8 MW CROD 57,034MWh
- Winter Season: 23.7 MW CROD 61,940 MWh
- NAPI Capacity and Energy: 12 MW at 100% load factor each month except November, December, January and February
- Expires: September 30, 2004

Post-2004 SLCA/IP Capacity and Energy at Cudei, Kayenta and Longhouse Valley Interchange

- Summer Season: 42.614 MW CROD 102,189.664 MWh
- Winter Season: 48.052 MW CROD 118,476.163 MWh
- Term: October 1, 2004 through September 30, 2024
- NAPI Capacity and Energy: 12 MW at 100% load factor each month except November, December, January and February
- Expires: Until Superseded by another "Exhibit A"

Native American Power Pooling and Scheduling Agreements

Hualapai Tribe

- Summer Season: 625 KW CROD 1,693.179 MWh
- Winter Season: 609 KW CROD 1,565.956 MWh
- Term: October 1, 2004 through September 30, 2024

Pueblo of Isleta

- Summer Season: 1,098 KW CROD 2,976.602 MWh
- Winter Season: 1,109 KW CROD 2,850.200 MWh
- Term: October 1, 2004 through Until such time either Party has terminated

San Carlos Apache Tribe

- Summer Season: 4,152 KW CROD 11,253.792 MWh
- Winter Season: 3,780 KW CROD 9,716.374 MWh
- Term: October 1, 2004 through September 30, 2024

Yavapai Apache Tribe

- Summer Season: 1,893 KW CROD 5,131.168 MWh
- Winter Season: 1,465 KW CROD 3,764.737 MWh
- Term: October 1, 2004 through Until such time either Party has terminated

Cocopah Indian Tribe

- Summer Season: 1,281 KW CROD 3,472.129 MWh
- Winter Season: 1,058 KW CROD 2,718.748 MWh
- Term: October 1, 2004 through Until such time either Party has terminated

Pascua Yaqui Tribe

- Summer Season: 1,320 KW CROD 3,577.270 MWh
- Winter Season: 1,032 KW CROD 2,652.462 MWh
- Term: October 1, 2004 through September 30, 2024

Tonto Apache Tribe

- Summer Season: 382 KW CROD 1,034.814 MWh

- Winter Season: 349 KW CROD 503.544 MWh
- Term: October 1, 2004 through September 30, 2024

Yavapai Prescott Indian Tribe
- Summer Season: 733 KW CROD 1,987.155 MWh
- Winter Season: 805 KW CROD 2,068.858 MWh
- Term: October 1, 2004 through September 30, 2024

Havasupai Tribe
- Summer Season: 199 KW CROD 538.853 MWh
- Winter Season: 237 KW CROD 609.797 MWh
- Term: October 1, 2004 through September 30, 2024

Paiute Indian Tribe of Utah
- Summer Season: 158 KW CROD 427.837 MWh
- Winter Season: 154 KW CROD 395.681 MWh
- Term: December 1, 2004 through September 30, 2024

Las Vegas Paiute Tribe
- Summer Season: 721 KW CROD 1,955.003 MWh
- Winter Season: 523 KW CROD 1,344.303 MWh
- Term: December 1, 2004 through September 30, 2024

Hopi Tribe
- Summer Season: 2,716 KW CROD 7,361.755 MWh
- Winter Season: 2,810 KW CROD 7,222.839 MWh
- Term: November 22, 2004 through September 30, 2024

Yomba Shoshone Tribe
- Summer Season: 31 KW CROD 83.349 MWh
- Winter Season: 30 KW CROD 76.261 MWh
- Term: May 1, 2005 through September 30, 2024

Tucson Electric Power Company Firm capacity and Energy at Shiprock, San Juan, McKinley, Four Corners, Springerville and Saguaro Substations.
- Maximum Summer Supply: 80 MW
- Maximum Winter Supply: 120 MW
- Starting January 01, 2010 the Maximum demand for both summer and winter months will be increased at 4 MW per year**.**
- Expires: December 31, 2015

Rocky Mountain Power Resources at Red Mesa and Mexican Hat Substations
- Capacity and Energy as needed

Continental Divide Electric Cooperative, Inc., Purchase Power Agreement at Houck Substation, Barth Lake, Crownpoint and Standing Rock.
- Capacity and Energy as needed
- Expires: May 31, 2005, thereafter both parties shall negotiate to replace the contract

- **Demand Side Resources**

  NTUA has multiple ongoing Demand Side Management ("DSM") activities including a solar photovoltaic program, a SCADA system for load management, Advanced Metering Infrastructure (AMI), public education programs and several transmission and distribution system maintenance and upgrade programs resulting in reduction in line losses and increased efficiency. The Authority has built several new substations and upgraded some of its aging infrastructure in the last three years, which can reduce the overall system losses significantly. In addition, NTUA is currently performing studies to evaluate the potential wind and solar resources on the Navajo Nation.

Identification and Comparison of Resource Options

The identification of options for additional resources within this IRP is coordinated through an examination of the costs and benefits for each resource. NTUA continues to look for other opportunities for energy savings from DSM, but must also weigh them in light of customer base demographics along with other factors. In addition, the vast expanse of NTUA's service area and the challenges associated with providing service to rural areas must also be taken into consideration when evaluating potential additional resources. Nevertheless, NTUA will continue its ongoing explorations of DSM activities and resources to further supplement active programs.

Designation of Options

NTUA will continue to evaluate additional resources on the least cost of ownership option basis as identified from a cost benefit analysis and within its contractual limitations under the TEP contract. This information is considered by the Management Board in public meetings and combined with other information to select an Action Plan for NTUA that confirms with the regulations and guidelines of the Energy Planning and Management Program. The selection of NTUA's Action Plan also includes consideration for reliability of service, economics, rate impacts and price elasticity, environmental effects, regulatory impacts and risks, legal considerations and risks, competitive impacts, social acceptance and public considerations and any other factors which may be identified from time-to-time which may be pertinent in selecting or implementing an Action Plan.

Action Plan

- **Resource Action Plan**

  The time period covered by NTUA's Action Plan is the Five-Year period from 2012 through 2016.

NTUA has determined that providing reliable electric power at the lowest practicable cost, consistent with sound business principles allow the Authority to continue using its long-term entitlements of SLCA/IP and TEP resources to supply the Authority's projected long-term power requirements. The current federal and TEP resources will be sufficient for the Authority to meet its monthly power and energy requirements through the short-term and NTUA is also currently in the process of negotiating a power supply contract with TEP for long-term planning periods; additional purchases of resources from Rocky Mountain Power and CDEC may also be made as necessary. Any anticipated load growth is expected to be met by current resources under contract; however, the Authority continues to investigate the potential benefit of distributed generation and other fossil fuel and renewable resource options. The Authority continuously revaluates the possible need for new resources, the availability of less costly resources and the potential for additional DSM activities. The Authority's Resource Action Plan enhances customer financial stability by providing services that will enhance property values and provide long-term stability in electric power rates.

Since no new resources are needed for normal operation, there are no milestones to evaluate accomplishment of the Plan activities. Nevertheless, the Authority will monitor any adjustments to the Plan for the long-term resource needs and will annually review its electric loads and resources for any significant changes. In the event the loads of the Authority increase above those levels represented in the Load and Resource information, other than normal deviations due to weather impacts, the Authority will review its forecast and evaluate the need for modifying its IRP and notify Western accordingly. In any event, the Authority will evaluate its load forecast and resource information in detail every year and refresh its IRP, in accordance with Western's regulations.

- **Conservation Action Plan**

The Authority will continue certain conservation activities to promote and maintain the energy efficiency of its distribution facilities and utilize opportunities to conserve electric and other resources. NTUA will invite each of the 13 Native American organizations involved with the contracting agreements to participate in conservation measures contemplated in the Energy Policy Act of 1992, including the Integrated Resource Planning process. NTUA will also offer assistance to each contracted organization wishing to participate in an Energy Planning Process.

Many of the Tribal organizations in the contracting agreements with NTUA may not have the opportunity or the responsibility for electrical energy delivery and therefore would be unable to make decisions, which would impact conservation on a day-to-day basis within their area of concern. These organizations can, however, promote wise energy use and responsible conservation and NTUA will encourage each participant to act accordingly.

Period: Calendar Year 2012 through 2016
Activity: Solar Photovoltaic Program
SCADA Load Management System
Public Education Programs
Lighting Conversion Program
Energy Efficiency and Weatherization
Transmission & Distribution System Improvements
Advanced Metering Infrastructure (AMI)

- **Validation and Evaluation**

Solar Photovoltaic Program

NTUA initiated this program several years ago in an effort to provide electricity to rural areas of the Navajo Nation, where the traditional means of providing electricity through the distribution system was not feasible. Currently, NTUA has approximately 240 photovoltaic power systems. The Authority is looking at various funding opportunities available to purchase additional units. Each of these units provides electricity to a single household that otherwise would either remain without power or rely upon other less efficient power sources. In addition to this renewable resource program, NTUA has been investigating Navajo Nation wind resources. Anemometers were installed at Gray Mountain, Arizona, Black Mesa, AZ and Big Boquillas, AZ for wind data collection. In addition NTUA installed PV generation units at its Chinle ,AZ Fort Defiance, AZ, Dilkon, AZ and Crown Point, NM district offices totaling an installed capacity of 321.75 kW. NTUA plans to continue assessing the potential for wind and solar resources on the Navajo Nation.

SCADA Load Management System

NTUA's Supervisory Control and Data Acquisition ("SCADA") system is currently used mainly for data acquisition and remote control for the remote electrical substations. Analog data received and monitored are voltages, currents, KW and KVAR for both the bus and each individual feeder; NTUA also obtains KW received at the delivery points with TEP. Discrete status points are also monitored, such as breaker open/close, non-reclosing, control malfunction, and AC power. NTUA monitors alarms on substation power transformers such as AC power to fans, and position indication of switches, etc. The SCADA system also allows for remote control of certain positions of the system. Remote control of electric devices was activated back in 2002, with the continued activation of devices over the next few years. Several G&W switches were installed and are remotely controlled from Utility Operations Center (UOC). Currently, the Authority is implementing remote control of substation feeder reclosers so that it can open and close breakers, place hot-line tags, and place breakers in non-reclosing. In the next few years, NTUA anticipates continuing the progression to remotely controlled breakers/reclosers and switches. The system also stores load data, which is adequate for system load studies. The system

tagging is used to tag hot-line work, clearances, and warning of temporary de-rating of equipment, along with various other items.

In relation to the water system, analog data monitored are tank levels and *gpm* (gallons per minute) of pumps. Discrete alarm points monitored are pump and well statuses including AC power and pump availability. Some pumps can be controlled / overridden from the UOC by dispatchers, allowing NTUA the flexibility of load control. In the future, the SCADA system will be aimed at reducing on-peak demands and identifying areas to improve efficiency.

Public Education Programs

Public information and education is a primary goal of the NTUA Public Affairs Department (PAD). The department is designated and responsible for disseminating information to employees, customers and residents within the regional service area. Working closely with NTUA district offices, the PAD has undertaken various public awareness campaigns. NTUA also publishes and circulates newsletters to its customers with information on energy conservation; currently these are distributed quarterly, but NTUA hopes to expand their publication to every two months. The PAD started making series of "how-to" videos with suggested titles including "How to Get the Best out of Your Photovoltaic Unit," "Ways to Conserve Water," and "Knowing Your Natural Gas System." As the PAD expands and continues its efforts, increased public awareness and conservation of energy, water and other resources are the anticipated results.

Lighting Conservation Program

In an effort to increase the efficiency of its lighting fixtures, NTUA has changed out mercury vapor security lights with high-pressure sodium replacements. Conversions have been averaged about 450 lamps each year with average savings of 300-325 KWh annually per lamp. This program was completed end of 2007, resulting in improved efficiency and overall energy savings as the individual usage of each lamp decreased.

Transmission and Distribution Improvements

NTUA has considerable financial and administrative resources invested in the operation and maintenance of its transmission and distribution system. As might be anticipated, the extraordinary size of NTUA service area brings with it particular challenges. As part of its regular O&M efforts, NTUA has been engaging in several activities to reduce losses and to increase the overall efficiency and reliability of the system. Transformer loss evaluations have been performed, resulting in the purchase of high efficiency transformers, and a transformer change-out program with a designed goal to change out transformers with less than 98.5% efficiency. Additions, improvements and/or changes to the system are considered in light of long-term needs and ramifications, extensive analysis of the existing system, and anticipated future growth as identified in the current Power Requirements Study. NTUA's current Long

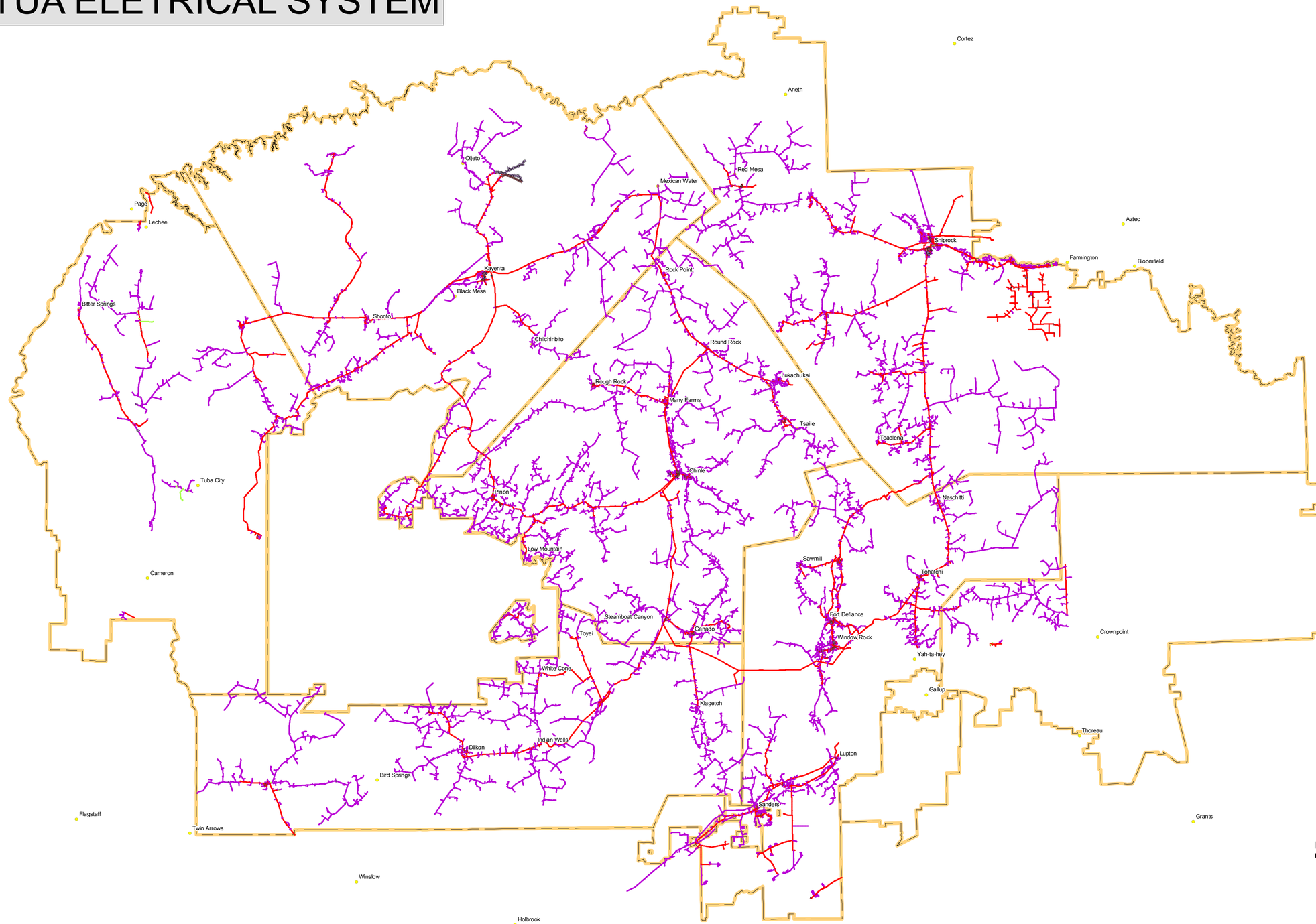
Range Plan for its system outlines the anticipated steps that will be taken to meet system needs through 2017, and it is updated with data from each new PRS. The Construction Work Plan details specific projects to be undertaken in two to four year periods with the long-term goals of the Long Range Plan in mind. Example of recent system improvements include New Shiprock#3 Substation, New transformer addition to Cudei Substation, Transformer upgrades to Dennehotso, AZ and Nenahnezad substation, which is going to add additional capacity, reduce losses and improved the power quality.

See **Appendix D** for further details.

Environmental Effects

The Authority is required, to the extent practicable, to minimize adverse environmental effects of new resource acquisitions and document these efforts in the IRP. Under the Authority's current resource plan, the Authority utilizes hydro resources to meet approximately one third of its electrical loads. In case there is any additional allotment from CRSP, more of NTUA's loads may be met with hydro resources during the five-year planning period, resulting in additional environmental benefits. In addition, NTUA is actively pursuing renewable sources of energy such as solar and wind. To the extent the Authority is able to utilize these renewable resources, and sponsor conservation activities and informational activities with its customers; the anticipated environmental impacts will be beneficial and economically sound.

NTUA ELETRICAL SYSTEM



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<all other values>

SubtypeCD

- Other Primary Underground
- Single Phase Primary Underground
- Three Phase Primary Underground
- Two Phase Primary Underground

Primary Overhead Electric Line

<all other values>

SubtypeCD

- Other Primary Overhead
- Single Phase Primary Overhead
- Three Phase Primary Overhead
- Two Phase Primary Overhead
- Street
- Communities3
- NTUA

N

0 26,500 53,000 106,000 159,000 212,000

Feet

Line# *Lead#* *Pole#*

Noted

Date

Initial

Enter Map Title

Sheet #

RATE SCHEDULE ER-01 RATE CODE 1

Residential Service

Availability

Available to all customers located in Navajo Country along existing lines of the Authority, where facilities of adequate capacity and suitable voltage are adjacent to the premises to be served.

Applicability

Applicable to electric service required for residential purposes in individual private homes or in individual metered apartments where service is provided at one point of delivery through one meter.

Character of Service

Single phase, 60 hertz, at one standard voltage (120/240 or 120/208 as maybe selected, subject to availability at the premises). Approval of the Authority must be obtained prior to the installation of any motor having a rated capacity of five (5) horsepower or more.

Net Monthly Rate

The monthly billing shall be the sum of the service charge and the energy charge set forth below:

Service Charge	$5.75
Energy Charge	
All kWh	$0.0740 per kWh

Monthly Minimum Charge

The monthly minimum charge shall not be less than the monthly service charge.

Adjustment for Purchase Power Cost Changes

The above rates are subject to increase or decrease by the amounts by which the Cost of Purchased Power exceeds or is less than $0.03574 per kWh sold. The Cost of Purchased Power includes all costs of purchased capacity and energy, and the costs paid to others for the transmission of such power and energy.

Terms and Conditions

Subject to the Authority's rules and regulations for electric service.

RATE SCHEDULE ER-02 RATE CODE 2

Residential Service-Electric Heat

Availability

Available to approved individual residential consumers located in Navajo Country along existing lines of the Authority, when facilities of adequate capacity and suitable voltage are adjacent to the premises to be served.

Applicability

Applicable to electric service required for permanently installed space heating and other residential purposes in individual private homes or apartments where service is provided and measured at one point of delivery through one meter.

Character of Service

Single phase, 60 hertz, at one standard voltage, 120/240 or 120/208 as may be selected, subject to availability at the premises. Approval of the Authority must be obtained prior to the installation of any motor having a rated capacity of five (5) horsepower.

Net Monthly Rate

The monthly billing shall be the sum of the service charge and the energy charge set forth below:

Service Charge $13.35

Energy Charge

All kWh ..... $0.0656 per kWh

Monthly Minimum Charge

The monthly minimum charge shall not be less than the monthly service charge.

Special Conditions

A. The installation of electric space heating according to plans and specifications for construction of the residence, which have been approved in advance by the Authority is a prerequisite to the availability of this rate schedule. The Authority does not assume any responsibility for installation or operations of the customer's space heating equipment, nor does the Authority assume any responsibility with respect to the customer's premises, such as the insulation of the area to be heated.

RATE SCHEDULE ER-02 *(continued)* RATE CODE 2

Special Conditions *(continued)*

B. The use of electrical energy as fuel for not less than 90% of the space heating requirements of a residence is necessary to qualify for this rate.

C. The entire cost of the entrance to service installations under this schedule (except the meter) shall be paid for by the customer.

D. This rate is not available on a seasonal basis, and the Authority reserves the right to inspect the premises and make such investigations as may be desirable in its sole discretion to determine whether or not the requirements of this rate schedule are being met.

E. All heaters larger than 1650 watts shall be designated to operate at 208 volts or 240 volts, whichever is available.

Adjustment for Purchase Power Cost Changes

The above rates are subject to increase or decrease by the amounts by which the Cost of Purchased Power exceeds or is less than $0.03574 per kWh sold. The Cost of Purchased Power includes all costs of purchased capacity and energy, and the costs paid to others for the transmitting of such power and energy.

Terms and Conditions

Subject to the Authority's rules and regulations for electric service.

RATE SCHEDULE EG-03 RATE CODE 3

General Service

Availability

Available to all consumers located in Navajo Country along existing lines of the Authority, where facilities of adequate capacity and suitable voltage are adjacent to the premises to be served.

Applicability

Applicable for commercial, industrial, institutional, three-phase farm and home service, and all other uses not ordinarily considered as normal residential, home, or farm use.

Character of Service

Normally 120/240 volts, single phase, 240 or 480 volts three-phase or 120/208 volts four-wire, combination single and three-phase, 60 hertz, through a single set of service wires. A demand meter is required for service under this rate schedule when minimum demand is 25 kW or more.

Net Monthly Rate

The monthly billing shall be the sum of the service charge and the demand and energy charges set forth below:

Service Charge	$11.45
Demand Charge:	
First 25 kW	None
Next 175 kW	$6.00 per kW
Additional kW	$4.00 per kW
Energy Charge:	
First 200 kWh	$0.1100 per kWh
Next 800 kWh	$0.0920 per kWh
Next 6,000 kWh	$0.0900 per kWh
Additional kWh	$0.0840 per kWh

RATE SCHEDULE EG-03 *(continued)* RATE CODE 3

Determination of Billing Demand

The billing demand shall be the maximum 15-minute integrated or thermal kilowatt demand established by the customer during the month for which the bill is rendered, as recorded or indicated by the demand meter and adjusted for power.

If the customer's power factor is less than eighty-five percent (85%), the customer shall be required to pay for eighty-five (85%) of the KVA and KVAH used.

Monthly Minimum Charge

The monthly minimum charge shall be the highest of the following charges:

1. A charge of $16.20 or
2. The minimum monthly charge specified in the customer's service application or contract.

Adjustment for Purchase Power Cost Changes

The above rates are subject to increase or decrease by the amounts by which the Cost of Purchased Power exceeds or is less than $0.03574 per kWh sold. The Cost of Purchased Power includes all costs of purchased capacity and energy, and the costs paid to others for the transmission of such power and energy.

Terms and Conditions

Subject to the Authority's rules and regulations for electric service.

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RATE SCHEDULE EL-04

RATE CODE 4

Oil and Gas Field Service

Availability

Available to all consumers located in Navajo Country along existing lines of the Authority, where facilities of adequate capacity and suitable voltage are adjacent to the premises to be served. A service application or contract shall be entered into between the customer and the Authority for a term of not less than 12 months.

Applicability

Applicable to electric service for installations of oil and gas industry as required at one point of deliver through a single meter at primary voltage available at the location from the Authority's lines.

Character of Service

Normally three-phase, 60 hertz, at the Authority's primary system voltage, with demand metering required.

Net Monthly Rate

The monthly billing shall be the sum of the service charge and the demand and energy charges set forth below:

Service Charge $22.85

Demand Charge:

All kW ..... $12.00 per kW

Energy Charge:

All kWh ..... $0.0520 per kWh

Determination of Billing Demand

The billing demand shall be the maximum 15-minute integrated or thermal kilowatt demand established by the customer during the month for which the bill is rendered, as recorded or indicated by the demand meter and adjusted for power factor as provided in the next paragraph.

If the customer's power factor is less than eighty-five percent (85%), the customer shall be required to pay for eighty-five percent (85%) of the KVA and KVAH used.

RATE SCHEDULE EL-04 *(continued)* RATE CODE 4

Monthly Minimum Charge

The monthly minimum charge shall be the highest of the following charges:

1. A charge of $90.00 or
2. The minimum monthly charge specified in the customer's service application or contract.

Adjustment for Purchase Power Cost Changes

The above rates are subject to increase or decrease by the amounts by which the Cost of Purchased Power exceeds or is less than $0.03574 cents per kWh sold. The Cost of Purchased Power includes all costs of purchased capacity and energy, and the costs paid to others for the transmission of such power and energy.

Terms and Conditions

Subject to the Authority's rules and regulations for electric service.

RATE SCHEDULE EL-05

RATE CODE 5

Large Power Service (Primary)

Availability

Available to all customers located in Navajo Country where facilities of adequate capacity and suitable voltage are adjacent to the premises to be served. A written contract shall be entered into between the customer and the Authority for a term of not less than 36 months.

Applicability

Applicable to electric service at primary voltage, as required by customers, and as available from the Authority.

Character of Service

Normally, service at primary voltage, 2,400 volts or higher, three-phase, 60 hertz, with demand metering required.

Net Monthly Rate

The net monthly billing shall be the sum of the demand and energy charges set forth below, subject to adjustments as provided in this rate schedule:

Demand Charge:

All kW (of Billing Demand) ..... $16.50 per kW

Energy Charge:

All kWh ..... $0.0425 per kWh

Determination of Billing Demand

The billing demand shall be the higher of (I) the Contract Demand as set forth in a contract between NTUA and the customer, or (II) the maximum fifteen (15) minutes integrated demand established by the customer during the current month or the previous eleven (11) months, as measured by standard metering equipment, but in no event less than 1000 KW.

Monthly Minimum Charge

The monthly minimum charge shall be the demand charge applied to the Billing Demand, as determined above, or as provided in the Contract with the customer.

RATE SCHEDULE EL-05 *(continued)* RATE CODE 5

Adjustment for Purchase Power Cost Changes

The above rates are subject to increase or decrease by the amounts by which the Cost of Purchased Power exceeds or is less than $0.03574 per kWh sold. The Cost of Purchased Power includes all costs of purchased capacity and energy, and the costs paid to others for the transmission of such power and energy.

Power Factor Adjustment

The measured demand may be adjusted if, during the period of customer's maximum demand, the power factor is found to be less than ninety percent (90%). The adjustment shall be made by increasing the measured demand one kilowatt for each KVA or fraction thereof by which the actual KVA demand exceeds the KVA demand at ninety percent (90%) power factor.

Peak Demand Adjustment

In the event the momentary peak demands of customer result in an increase in kilowatt Billing Demand to NTUA by a supplier of power to NTUA, a like increase in the billing Demand will be made to the customer.

Excess Delivery

The delivery of power in excess of the contract demand shall not obligate NTUA to continue the delivery of such excess; and in the event that NTUA is unable to continue such deliveries, the billing demand shall reduce accordingly.

Terms and Conditions

Subject to the Authority's rules and regulations for electric service.

RATE SCHEDULE

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RATE SCHEDULE ES-06

RATE CODE 6

Public Street, Highway and Private Area Lighting

Availability

Available to individual customers, public agencies and government instrumentalities, or other customers of the Authority in Navajo Country located along existing lines of the Authority.

Applicability

Applicable to dusk to dawn overhead lighting of streets, thoroughfares, private areas, alleys, grounds, and other areas.

Character of Service

The Authority will install a dusk to dawn luminaire on existing service poles and maintain the necessary facilities, including lamps, fixtures, controls, and so forth in accordance with its specifications; and supply electric energy for dusk to dawn operation of the lamps. Lamp replacements will be made by the Authority within a reasonable time of a reported outage.

Net Monthly Rate

The net monthly billing shall be as follows:

Monthly Charge ..... $9.50 per Lamp

Special Conditions - Dusk to Dawn Lights

A. General. All currently available dusk to dawn lights are equipped with 120 volt, 2 wire ballasts. Other than the lamp, fixture and connection to the unmetered supply on an existing pole and all facilities including new poles and service cable shall be considered as extension facilities and shall be paid for by the customer.

B. Establishment Fee. A non-refundable establishment fee of $10.00 per lamp shall be paid in advance by the customer for the establishment of a dusk to dawn light.

C. Extensions. The maximum span on unguyed #4 duplex is 150 feet. If an extension exceeds 150 feet, an additional pole will be required for each 150-foot span or portion thereof. Customer shall pay all costs attributable to new facilities and extensions.

D. Ownership of Facilities. All lamps, poles, and fixtures shall be and remain the property of the Authority.

RATE SCHEDULE ES-06 *(continued)* RATE CODE 6

E. Vandalism. Excessive vandalism, as determined in the discretion of the Authority, shall result in removal of the light and any extension facilities. The Authority may give reasonable notice of its intention to terminate service for vandalism.

F. Maintenance. The customer shall be responsible for any damage to facilities caused by him or instrumentalities under his control. Maintenance of all facilities shall be provided by the Authority.

G. Outages. It shall be the duty of the customer to report to the Authority the failure of any lamp to burn or to burn adequately. The Authority will, during regular working hours, perform the necessary maintenance to restore proper service within a reasonable time.

Terms and Conditions

Subject to the Authority's rules and regulations for electric service.

RATE SCHEDULE ES-07

RATE CODE 7

Special Area Lighting Service

Availability

Available to public agencies and government instrumentalities, or other customers of the Authority in Navajo Country located along existing lines of the Authority.

Applicability

Applicable to lighting of stadiums, athletic grounds, rodeo arenas and other special areas for public agencies, government instrumentalities, and others under a contract for a specified term, where the Authority furnishes electric service to facilities owned by the customer.

Character of Service

Normally, single phase, 60 hertz, at one standard voltage, as may be selected (not over 480 volts), subject to availability at the premises.

Net Monthly Rate

The monthly billing shall be in accordance with contract terms.

Special Conditions

A. Service under this rate is limited to those situations where high level lighting is required for a specified area, such as an athletic field, rodeo arena and so forth.

B. Individual contracts must be negotiated with the Authority for such applications.

C. The Authority reserves the right to require a deposit guaranteeing performance by the customer of the contract payments.

Terms and Conditions

Subject to the Authority's rules and regulations for electric service.

RATE SCHEDULE EL-10

RATE CODE 10

Irrigation

Availability

Available to all consumers located in Navajo Country along existing lines of the Authority, where facilities of adequate capacity and suitable voltage are adjacent to the premises to be served.

Applicability

Applicable for irrigating pumping service used for growing crops for resale.

Character of Service

Normally 120/240 volts, single phase, 240 or 480 volts three-phase or 120/208 or 277/480 volts four-wire, combination single and three-phase, 60 hertz, through a single set of service wires. A demand meter is required for service under this rate schedule.

Net Monthly Rate

The monthly billing shall be the sum of the service charge and the demand and energy charges set forth below:

Service Charge $11.45

Demand Charge:

All kW ..... $ 6.00 per kW

Energy Charge:

All kWh ..... $ 0.0650 per kWh

Determination of Billing Demand

The billing demand shall be the maximum 15-minute integrated or thermal kilowatt demand established by the customer during the month for which the bill is rendered, as recorded or indicated by the demand meter and adjusted for power factor as provided in the next paragraph.

If the customer's power factor is less than ninety percent (90%), the customer shall be required to pay for ninety (90%) of the KVA and KVAH used at the kW Demand Charge for KVA and at the kWh Energy Charge for KVAH.

RATE SCHEDULE EL-10 *(continued)* RATE CODE 10

Monthly Minimum Charge

The monthly minimum charge shall be the highest of the following charges:

1. A charge of $17.55 or
2. The minimum monthly charge specified in the customer's service application or contract.

Adjustment for Purchase Power Cost Changes

The above rates are subject to increase or decrease by the amounts by which the Cost of Purchased Power exceeds or is less than $0.03574 per kWh sold. The Cost of Purchased Power includes all costs of purchased capacity and energy, and the costs paid to others for the transmission of such power and energy.

Terms and Conditions

Subject to the Authority's rules and regulations for electric service.

TABLE OF CONTENTS

TABLE OF CONTENTS

NAVAJO TRIBAL UTILITY AUTHORITY
TOTAL REVENUE PRODUCING CUSTOMERS
BASE LINE ECONOMIC AND WEATHER FORECAST
UPDATED THROUGH 2011

	YEAR	Number of Customers	Customer Growth Rate %	KWH sold	Sales Growth Rate %	%Loss Factor	Purchased Power	Purchased Power Growth Rate %	Peak Demand	Peak Demand Growth Rate %	Average Annual Load Factor	Total Energy Per Customer
	1990	22,464		495,846,468		8.46%	541,682,308		106,323		53%	22,073
	1991	23,668	5%	520,660,188	5%	7.73%	564,255,262	4%	109,570	3%	54%	21,998
	1992	24,853	5%	516,213,528	-1%	8.23%	562,492,349	0%	110,226	1%	53%	20,771
	1993	25,833	4%	502,073,753	-3%	8.37%	547,959,819	-3%	107,938	-2%	53%	19,435
	1994	26,763	4%	501,341,503	0%	8.67%	548,911,916	0%	107,122	-1%	53%	18,733
	1995	27,612	3%	526,431,652	5%	8.99%	578,433,841	5%	109,170	2%	55%	19,065
	1996	28,499	3%	535,296,655	2%	7.21%	576,870,490	0%	110,178	1%	55%	18,783
	1997	29,366	3%	592,001,171	11%	6.62%	633,988,433	10%	113,887	3%	59%	20,159
	1998	29,976	2%	599,324,014	1%	6.72%	642,485,697	1%	111,367	-2%	61%	19,993
	1999	30,930	3%	597,030,009	0%	6.98%	641,822,709	0%	118,956	7%	57%	19,303
	2000	32,488	5%	634,380,890	6%	6.71%	680,024,631	6%	114,757	-4%	63%	19,527
	2001	33,787	4%	658,107,030	4%	2.56%	675,375,263	-1%	108,253	-6%	69%	19,478
	2002	35,932	6%	611,196,339	-7%	14.77%	717,115,180	6%	111,909	3%	62%	17,010
	2003	37,044	3%	649,465,370	6%	12.22%	739,899,166	3%	113,886	2%	65%	17,532
	2004	37,423	1%	725,309,617	12%	5.58%	768,157,612	4%	129,838	14%	64%	19,381
	2005	38,046	2%	714,437,390	-1%	5.30%	754,400,228	-2%	128,279	-1%	64%	18,778
	2006	38,177	0%	568,601,728	-20%	9.34%	627,155,955	-17%	112,080	-13%	58%	14,894
	2007	38,658	1%	552,545,723	-3%	11.69%	625,694,014	0%	120,537	8%	52%	14,293
	2008	38,583	0%	576,512,701	4%	10.28%	642,563,807	3%	132,935	10%	50%	14,942
	2009	38,785	1%	611,588,872	6%	10.88%	686,268,335	7%	137,098	3%	51%	15,769
Historical	2010	39,414	2%	645,054,123	5%	8.79%	707,194,909	3%	138,983	1%	53%	16,366
	2011	39,761	1%	676,670,277	5%	7.62%	732,511,717	4%	131,616	-5%	59%	17,018

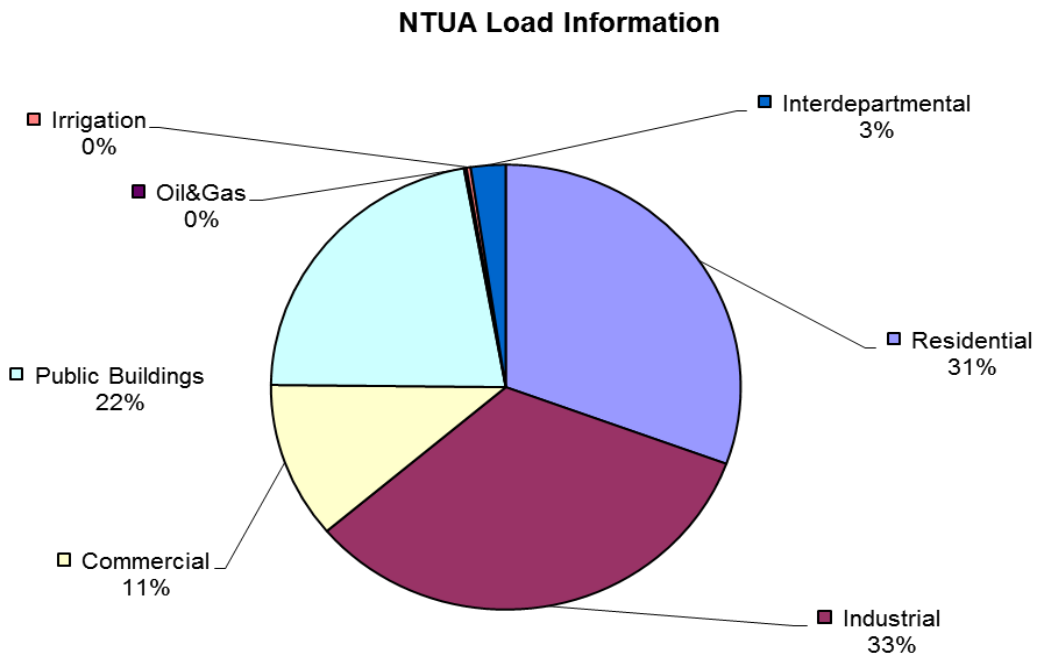
NAVAJO TRIBAL UTILITY AUTHORITY
TOTAL REVENUE PRODUCING CUSTOMERS
BASE LINE ECONOMIC AND WEATHER FORECAST
UPDATED THROUGH 2011

Forecast	2012	40,556	2%	696,970,385	3%	7.62%	754,487,069	3%	135,564	3%	59%	17,185
	2013	41,367	2%	717,879,497	3%	7.62%	777,121,681	3%	139,631	3%	59%	17,354
	2014	42,195	2%	739,415,882	3%	7.62%	800,435,331	3%	143,820	3%	59%	17,524
	2015	43,039	2%	761,598,358	3%	7.62%	824,448,391	3%	148,135	3%	59%	17,696
	2016	43,899	2%	776,830,325	2%	7.62%	840,937,359	2%	151,098	2%	59%	17,696
	2017	44,777	2%	792,366,932	2%	7.62%	857,756,106	2%	154,120	2%	59%	17,696
	2018	45,673	2%	808,214,271	2%	7.62%	874,911,228	2%	157,202	2%	59%	17,696
	2019	46,586	2%	824,378,556	2%	7.62%	892,409,453	2%	160,346	2%	59%	17,696
	2020	47,518	2%	840,866,127	2%	7.62%	910,257,642	2%	163,553	2%	59%	17,696
	2021	47,993	1%	857,683,450	2%	7.62%	928,462,794	2%	166,824	2%	59%	17,871
	2022	48,473	1%	874,837,119	2%	7.62%	947,032,050	2%	170,161	2%	59%	18,048
	2023	48,958	1%	892,333,861	2%	7.62%	965,972,691	2%	173,564	2%	59%	18,227
	2024	49,448	1%	910,180,538	2%	7.62%	985,292,145	2%	177,035	2%	59%	18,407
	2025	49,942	1%	928,384,149	2%	7.62%	1,004,997,98 8	2%	180,576	2%	59%	18,589
	2026	50,441	1%	937,667,990	1%	7.62%	1,015,047,96 8	1%	182,381	1%	59%	18,589
	2027	50,946	1%	947,044,670	1%	7.62%	1,025,198,44 8	1%	184,205	1%	59%	18,589
	2028	51,455	1%	956,515,117	1%	7.62%	1,035,450,43 2	1%	186,047	1%	59%	18,589
	2019	51,970	1%	966,080,268	1%	7.62%	1,045,804,93 6	1%	187,908	1%	59%	18,589
	2030	52,490	1%	975,741,071	1%	7.62%	1,056,262,98 6	1%	189,787	1%	59%	18,589

NAVAJO TRIBAL UTILITY AUTHORITY

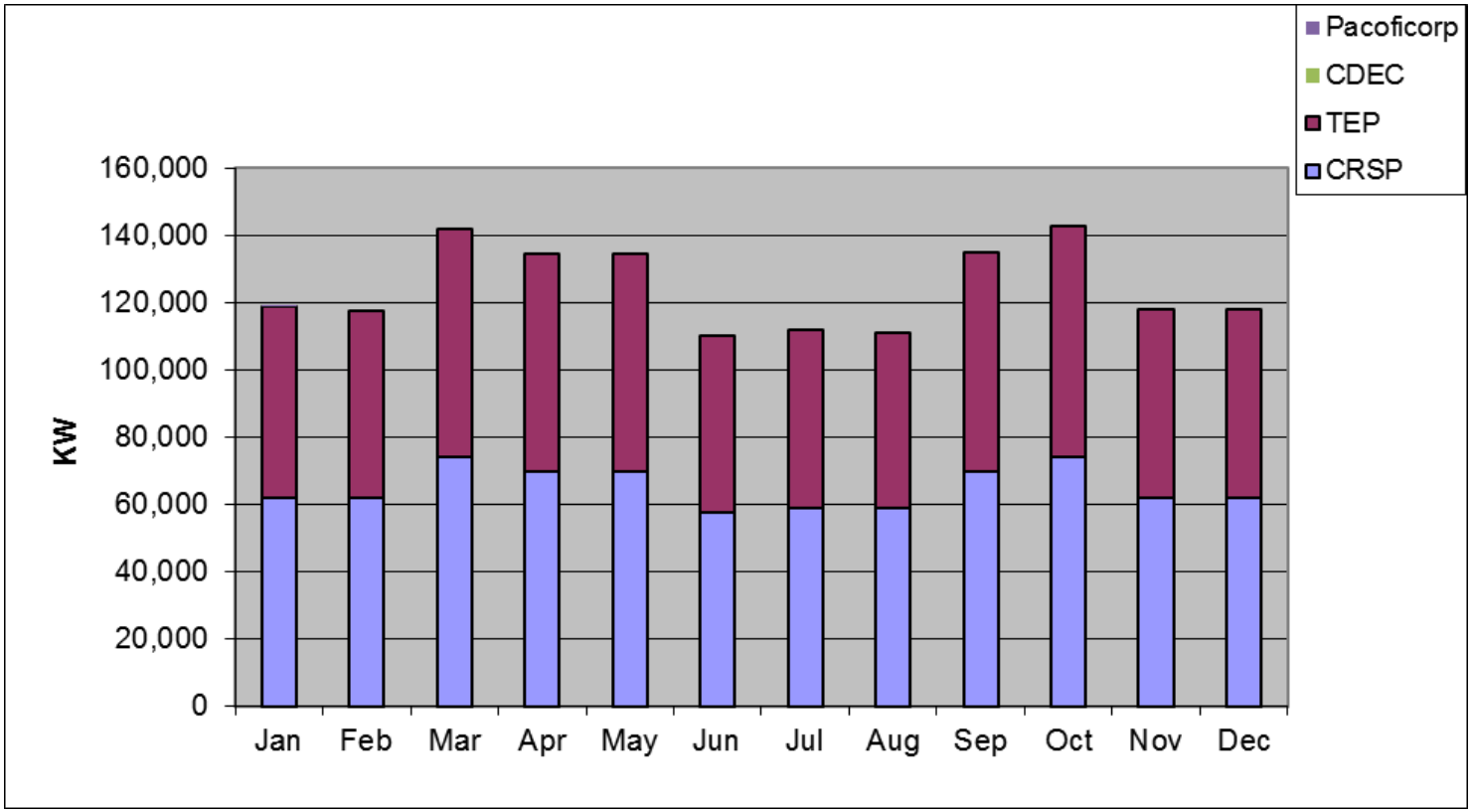
LOAD DISTRIBUTION

Rate Class	Average Mo.# of Customers	2011 KWH Usage RUS Form 7
Residential	35,570	203,886,748
Industrial	3	221,195,271
Commercial	1,347	75,685,129
Public Buildings	2,242	146,460,290
Oil & Gas	12	1,151,311
Irrigation	145	1,946,819
Interdepartmental	442	15,959,638
Security Lights	13,969	10,385,071



NAVAJO TRIBAL UTILITY AUTHORITY

SCHEDULED RESOURCES TO COVER TYPICAL PEAK DEMAND



	Resources											
	Jan	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
CRSP	62,013	62,013	74,013	69,923	69,923	57,811	58,743	58,743	69,923	74,013	62,013	62,013
TEP	56,995	55,513	67,837	64,504	64,700	52,219	53,300	52,394	65,119	68,587	55,837	55,918
CDEC	3,194	1,895	1,608	1,519	1,447	1,720	1,723	1,991	1,746	1,461	1,568	1,755
PacifiCorp	1,824	4,605	4,568	3,900	3,776	3,872	3,720	4,358	3,058	3,965	4,608	4,340
Peak Demand	**130,991**	**131,616**	**123,223**	**112,694**	**103,834**	**120,159**	**103,472**	**97,323**	**104,145**	**118,984**	**126,684**	**130,607**

NTUA 2008-2011 Construction Work Plan
Summary of Costs

						2008 Construction			2009 Construction			2010 Construction			2011 Construction			Total CWP Cost	Project Status
						Unit Cost Installed	Quantity	Extended Costs	Unit Cost Installed	Quantity	Extended Costs	Unit Cost Installed	Quantity	Extended Costs	Unit Cost Installed	Quantity	Extended Costs		
New Line Extensions (Code 100)			**Total Consumers**	**Total Miles-Avg Length=0.25 m/build**															
	101	Underground Extensions	60	8.00		$ 50,000	2	$ 100,000	$ 52,000	2	$ 104,000	$ 54,100	2	$ 108,200	$ 84,500	2	$ 169,000	$ 481,200	
	102	Overhead Extensions (includes NEDP Major Developments)	3740	269.20		$ 39,500	67.30	$ 2,658,350	$ 41,100	67.30	$ 2,766,030	$ 42,800	67.30	$ 2,880,440	$ 66,900	67.30	$ 4,502,370	$ 12,807,190	
	104	Photovoltaic Systems						$ 1,498,500			$ 1,498,500							$ 2,997,000	Completed
	100	Consumer Contributions ($1,500 allowance per cons.- 950 new cons.per year)					950	$ (1,333,350)		950	$ (1,445,030)		950	$ (1,563,640)		950	$ (3,246,370)	$ (7,588,390)	
			Total New Line Extensions					**$ 2,923,500**			**$ 2,923,500**			**$ 1,425,000**			**$ 1,425,000**	**$ 8,697,000**	
Substation Area	**New Tie Lines (Code 200)**																		
	Description		**Line**	**Miles**															
LeChee	220.23	LeChee to Page (Antelope Point)	3-PH, 4/0 ACSR	3.65				$ -	$ 56,200	3.65	$ 205,200			$ -			$ -	$ 205,200	Carryover
Shiprock No.3	220.24	Horseshoe Canyon Tap to Shiprock Hospital	3-PH, 477 ACSR	1.58		$ 70,000	1.58	$ 110,600			$ -			$ -			$ -	$ 110,600	Completed
Shiprock No.1	220.25	Shiprock No. 1 to Shiprock Hospital Feeder Tap (Double circuit)	3-PH, 477 ACSR	1.60		$ 104,000	1.60	$ 166,400			$ -			$ -			$ -	$ 166,400	Completed
Navajo	220.26	Navajo to Sawmill Circuit (Double circuit)	3-PH, 4/0 ACSR	1.15		$ 112,500	1.15	$ 129,400			$ -			$ -			$ -	$ 129,400	Completed
Dennehotso	220.27	Feeder R602, Water Well to BIA School	3-PH, 4/0 ACSR	4.10		$ 54,000	4.10	$ 221,400			$ -							$ 221,400	Completed
Houck	220.28	Rolling Hills tie line	3-PH, 4/0 ACSR	1.10				$ -	$ 56,200	1.10	$ 61,900							$ 61,900	Carryover
Houck	220.29	Rolling Hills Ranch tie line	1-PH, 1/0 ACSR	1.00				$ -	$ 41,100	1.00	$ 41,100							$ 41,100	Carryover
Burnside	220.30	Burnside to Cornfields tie	1-PH, 1/0 ACSR	1.00		$ 39,500	1.00	$ 39,500										$ 39,500	Completed
		Contributions towards specific projects						$ (64,700)										$ (64,700)	
			Total New Tie Lines					**$ 602,600**			**$ 308,200**			**$ -**			**$ -**	**$ 910,800**	
	Conversion & Line Changes: (Code 300)																		
	Description		**Proposed**	**Existing**	**Miles**														
Burnside	320.26	Klagetoh to Wide Ruins	3-PH, 1/0 ACSR	1-PH, #4 ACSR	11.00	$ 68,700	11.00	$ 755,700			$ -			$ -			$ -	$ 755,700	Carryover
Tohatchi	320.27	Coyote Canyon Chapter House to Standing Rock	3-PH, 4/0 ACSR	1-PH, #4 ACSR	16.30	$ 81,000	7.34	$ 594,200	$ 84,300	8.97	$ 755,800			$ -			$ -	$ 1,350,000	Carry over
Fort Defiance	320.28	Fort Defiance to Window Rock (4 mi)	3-PH, 477 ACSR	3-PH, #4 ACSR	4.50	$ 105,000	1.58	$ 165,400	$ 109,200	2.93	$ 319,500			$ -			$ -	$ 484,900	Carryover
Tohatchi	320.29	Tohatchi to Buffalo Springs	3-PH, 4/0 ACSR	3-PH, #2 ACSR	10.40			$ -			$ -			$ -	$ 60,900	10.40	$ 633,400	$ 633,400	Carryover
Standing Rock MP	320.30	Standing Rock Conversion with Spacing for 3-ph	1-PH, 1/0 ACSR	1-PH, #4 ACSR	7.34			$ -			$ -			$ -	$ 66,900	7.34	$ 491,100	$ 491,100	Completed
Shiprock No.2	320.31	Shiprock #2 to Red Valley Junction	3-PH, 4/0 ACSR	3-PH, #2/0 and 2 ACSR	5.80			$ -			$ -	$ 87,800	5.80	$ 509,300			$ -	$ 509,300	Removed
Shiprock No.2	320.32	Red Valley Junction to Mitten Rock	3-PH, 4/0 ACSR	3-PH, #2 ACSR	14.50			$ -			$ -			$ -	$ 91,400	14.50	$ 1,325,300	$ 1,325,300	Removed
Tsegi	320.33	Plenty Water to Red Lake	3-PH, 4/0 ACSR	1-PH, 1/0 ACSR	8.00			$ -			$ -	$ 87,800	8.00	$ 702,400			$ -	$ 702,400	Carryover
Burnside	320.34	Ganado to Nazlini School	3-PH, 4/0 ACSR	1-PH, #4 ACSR	13.10	$ 81,000	6.55	$ 530,600	$ 84,300	6.55	$ 552,200			$ -			$ -	$ 1,082,800	Carryover
Chinle	320.35	Feeder R358 First mile out of substation	3-PH, 477 ACSR	3-PH, #4 ACSR	1.00			$ -	$ 109,200	1.00	$ 109,200			$ -			$ -	$ 109,200	Carryover
Kayenta	320.36	Promise Rock Regulator Station to MV Junction (contribution of $419,000)	3-PH, 4/0 ACSR	3-PH, #4 ACSR	6.70	$ 81,000	6.70	$ 542,700			$ -			$ -			$ -	$ 542,700	Completed
Dennehotso	320.37	Feeder R602 (contribution of $60,000)	3-PH, 4/0 ACSR	1-PH, #4 ACSR	2.50	$ 81,000	2.50	$ 202,500			$ -			$ -			$ -	$ 202,500	Completed
Shiprock No.1	320.38	Feeder B207 Conversion from 13.8 to 24.9/14.4kV	25 kV (various conductors)	13.8 kV (various conductors)	20.97					1 lot	$ 741,400			$ -			$ -	$ 741,400	Removed
Shiprock No.1	320.39	Feeder B208 Conversion from 13.8 to 24.9/14.4kV	25 kV (various conductors)	13.8 kV (various conductors)	8.98				$ -	1 lot	$ 237,600							$ 237,600	Removed
Shiprock No.1	320.40	Feeder B210 Conversion from 13.8 to 24.9/14.4kV Horseshoe Canyon section only	25 kV (various conductors)	13.8 kV (various conductors)	10.40		1 lot	$ 309,400						$ -				$ 309,400	Removed
Cove	320.41	Cove to Cove Pump House Feeder Upgrade						$ 200,000						$ -				$ 200,000	Carryover
Red Valley	320.44	Red Valley High School to Red Valley Community Water Well Feeder Upgrade						$ -			$ 450,000			$ -				$ 450,000	Completed
Santosee	320.45	Santosee (Hwy 491 to Rodeo Ground) Feeder Upgrade						$ -			$ 450,000			$ -				$ 450,000	Carryover
		Contributions towards specific projects						$ (479,000)			$ (600,000)			$ -				$ (1,079,000)	
			Total Conversion & Line Changes					**$ 2,821,500**			**$ 3,015,700**			**$ 1,211,700**			**$ 2,449,800**	**$ 9,498,700**	
	Substations Requirements (Codes 400 & 500)																		
	Description		**Transformer (MVA)**	**Voltage (kV)**															
Pinon	420.06	Pinon Substation	12/16/20	115:69/24.9:14.4				$ -			$ -	$ 1,400,000	1	$ 1,400,000			$ -	$ 1,400,000	Carryover
NAPI	420.08	NAPI Substation	12/16/20	115:69/34.5				$ -	$ 1,375,000	1	$ 1,375,000	$ 1,375,000	1	$ 1,375,000				$ 2,750,000	Carryover
	420.09	Mobile Substation	20/26/33	115/24.9				$ -	$ 1,100,000	1	$ 1,100,000			$ -				$ 1,100,000	Completed
Dilcon	420.10	Dilcon Substation	10/12.5/14	115:69/24.9				$ -			$ -	$ 1,100,000	1	$ 1,100,000				$ 1,100,000	Carryover
		Contributions for NAPI project						$ -			$ -			$ (1,400,000)				$ (1,400,000)	
LeChee	520.13	Transformer Upgrade (Existing 1500KVA)	5.000	115:69/24.9:14.4				$ -	$ 700,000	1	$ 700,000			$ -			$ -	$ 700,000	Carryover
Cornfields	520.17	Upgrade 1-PH to 3-PH and add 2500kVA Transformer	2.500	115:69/24.9:14.4		$ 200,000	1	$ 200,000			$ -			$ -			$ -	$ 200,000	Removed
Rock Point	520.19	Relocate 1.5MVA Substation & upgrade transformer	1.500	115:69/24.9:14.4				$ -	$ 900,000	1	$ 900,000			$ -			$ -	$ 900,000	Carryover
Lake Camp	520.20	Transformer Upgrade (Existing 25kVA), Install Ground Grid, Recloser, Fence	0.050	40/14.4				$ -	$ 100,000	1	$ 100,000			$ -			$ -	$ 100,000	Completed
Church Rock	520.21	Transformer Upgrade (Existing 25kVA), Install Ground Grid, Recloser, Fence	0.167	40/14.4		$ 150,000	1	$ 150,000			$ -			$ -			$ -	$ 150,000	Completed
Many Farms	520.22	Transformer upgrade & add relays and regulators	12/16/20	115:69/24.9:14.4		$ 150,000	1	$ 150,000			$ -			$ -			$ -	$ 150,000	Carryover
Houck	520.23	Mobile Set-up				$ 75,000	1	$ 75,000			$ -			$ -			$ -	$ 75,000	Completed
Tohatchi	520.24	Mobile Set-up				$ 75,000	1	$ 75,000			$ -			$ -			$ -	$ 75,000	Completed
Coalmine	520.25	Transformer Upgrade and SCADA interface	12/16/20	115/24.9				$ -	$ 1,000,000	1	$ 1,000,000			$ -			$ -	$ 1,000,000	Carryover
Round Rock	520.26	Transformer Upgrade	12/16/20	115/24.9				$ -			$ -				$ 800,000	1	$ 800,000	$ 800,000	Carryover
Burnside	520.27	Upgrade to 115 kV, upgrade transformer and Voltage Regulators (Transformer from Coalmine)	7.5/9.375	115/24.9				$ -			$ -	$ 600,000	1	$ 600,000			$ -	$ 600,000	Carryover
Dennehotso	520.28	Transformer Upgrade	3.75	115:69/24.9:14.4		$ 600,000	1	$ 600,000			$ -			$ -			$ -	$ 600,000	Completed
Shiprock #1	520.29	24.9/14.4 kV Bus transfer arrangement				$ 150,000	1		$ 150,000	1	$ 150,000			$ -			$ -	$ 150,000	Removed
Jeddito	520.30	Upgrade (3) 1-PH 500kVA to (1) 3-PH 1500kVA add Mobile Setup, Reclosers	1.500	69/24.9:14.4		$ 500,000	1	$ 500,000			$ -			$ -			$ -	$ 500,000	Carryover
Chinle	520.31	Upgrade control for VWVE Recloser to Form 6 Control				$ 65,000	1	$ 65,000			$ -			$ -			$ -	$ 65,000	Completed
Shiprock No.2	520.32	Upgrade bus ampacity, Add new feeder bay equipment						$ -			$ -			$ -	$ 220,000	1	$ 220,000	$ 220,000	Completed
Whitegrass	520.33	Install Ground Grid, Recloser, Fence						$ -	$ 100,000	1	$ 100,000			$ -			$ -	$ 100,000	Completed
Coalmine	520.34	Coalmine Mobile						$ 150,000			$ -						$ -	$ 150,000	Completed
Gray Mountain	520.35	Gray Mountain Substation Addition						$ 100,000			$ -						$ -	$ 100,000	Completed
Navajo	520.36	Navajo Substation changes						$ 200,000			$ -						$ -	$ 200,000	Completed
			Total Substations Requirements					**$ 2,265,000**			**$ 5,425,000**			**$ 3,075,000**			**$ 1,020,000**	**$ 11,785,000**	

Appendix D

NTUA 2008-2011 Construction Work Plan
Summary of Costs

						2008 Construction			2009 Construction			2010 Construction			2011 Construction			Total CWP Cost	Project Status
						Unit Cost Installed	Quantity	Extended Costs	Unit Cost Installed	Quantity	Extended Costs	Unit Cost Installed	Quantity	Extended Costs	Unit Cost Installed	Quantity	Extended Costs		
Member Service and Miscellaneous Facilities (Code 600)																			
		Description																	
	601	New Member Transformers Overhead (Including Upgrades)				$ 1,530	906	$ 1,386,200	$ 1,570	906	$ 1,422,500	$ 1,620	906	$ 1,467,800	$ 1,670	906	$ 1,513,100	$ 5,789,600	
	601	New Member Transformers Underground (Including Upgrades)				$ 7,500	44	$ 330,000	$ 7,700	44	$ 338,800	$ 7,950	44	$ 349,800	$ 8,200	44	$ 360,800	$ 1,379,400	
	601	New Member Regular Meters (Including Upgrades) (100% AMR ready)				$ 110	1571	$ 172,900	$ 115	1571	$ 180,700	$ 120	1571	$ 188,600	$ 125	1571	$ 196,400	$ 738,600	
	601	Meter Replacments for AMR Implementation (Replace 1/2 NTUA meters in 4 years)				$ 115	4,803	$ 552,400	$ 120	4,803	$ 576,400	$ 125	4803	$ 600,400	$ 130	4803	$ 624,400	$ 2,353,600	
	601	New Member Special Meters (Including Upgrades)				$ 165	140	$ 23,100	$ 170	140	$ 23,800	$ 175	140	$ 24,500	$ 180	140	$ 25,200	$ 96,600	
Shiprock No.1	601	Transformers for Voltage Conversion Shiprock #1 Feeder B207						$ -	$ 2,300	239	$ 549,700			$ -	$ -	0	$ -	$ 549,700	Removed
Shiprock No.1	601	Transformers for Voltage Conversion Shiprock #1 Feeder B208						$ -	$ 1,900	126	$ 239,400			$ -	$ -	0	$ -	$ 239,400	Removed
Shiprock No.1	601	Transformers for Voltage Conversion Shiprock #1 Feeder B210				$ 1,500	267	$ 400,500			$ -	$ -	0	$ -	$ -	0	$ -	$ 400,500	Removed
	603	VT's and CT's				$ 5,300	5	$ 26,500	$ 5,600	5	$ 28,000	$ 5,900	5	$ 29,500	$ 6,200	5	$ 31,000	$ 115,000	
	602	Sets of Service Wire to Increase Capacity				$ 3,300	200	$ 643,100	$ 3,400	200	$ 668,900	$ 3,500	200	$ 695,700	$ 3,700	200	$ 723,600	$ 2,731,300	
	603	Sectionalizing Equipment				$ 9,000	70	$ 630,000	$ 9,400	70	$ 658,000	$ 9,800	70	$ 686,000	$ 10,200	70	$ 714,000	$ 2,688,000	
	604	Regulators				$ 11,800	10	$ 118,000	$ 12,300	10	$ 123,000	$ 12,800	10	$ 128,000	$ 13,400	10	$ 134,000	$ 503,000	
	605	Capacitors				$ 4,700	50	$ 235,000	$ 4,900	50	$ 245,000	$ 5,100	50	$ 255,000	$ 5,400	50	$ 270,000	$ 1,005,000	
	607	Ordinary Pole Replacement/Anchors & Guys/Crossarms				$ 2,200	530	$ 1,166,000	$ 2,300	530	$ 1,212,700	$ 2,400	530	$ 1,261,300	$ 2,500	530	$ 1,311,800	$ 4,951,800	
	608	URD Replacement				$ -	0	$ -	$ -	0	$ 650,000	$ -	0	$ -	$ -	0	$ -	$ 650,000	
	615	Broadband Network utilizing Fiber Optic																$ -	
			Total Member Service and Miscellaneous Facilities					**$ 5,683,700**			**$ 6,916,900**			**$ 5,686,600**			**$ 5,904,300**	**$ 24,191,500**	
Code 700																			
		Description																	
	702	Security Lights				$ 480	726	$ 348,600	$ 500	726	$ 363,200	$ 520	726	$ 377,700	$ 540	726	$ 392,200	$ 1,481,700	
	704.06	Distribution Feeder Monitoring, Control and Automation									$ 4,991,750			$ 4,991,750				$ 9,983,500	Carryover
	704.07	69 kV Bi-Directional metering between Kayenta 230/69 kV(Feeder B3) and LHV 230/69kV (Feeder L4)									$ 175,000			$ -				$ 175,000	Completed
	704.05	AMI System						$ 750,000			$ 721,000			$ 742,700			$ 765,000	$ 2,978,700	On-going
	704.01	SCADA System Emergency Backup System				$ 55,000	1	$ 55,000			$ -			$ -			$ -	$ 55,000	Completed
	704.02	56-inch SCADA wall display for UOC				$ 25,000	1	$ 25,000			$ -			$ -			$ -	$ 25,000	Completed
	704.03	SCADA RTU upgrades				$ 35,000	1	$ 35,000	$ 35,000	1	$ 35,000	$ 40,000	1	$ 40,000	$ 40,000	1	$ 40,000	$ 150,000	Completed
	704.04	SCADA Master Station Replacement				$ 400,000	1	$ 400,000		1	$ -			$ -			$ -	$ 400,000	Completed
			Total Code 700					**$ 1,613,600**			**$ 6,285,950**			**$ 6,152,150**			**$ 1,197,200**	**$ 15,248,900**	
		TOTAL DISTRIBUTION INCLUDING 104 BELOW						**$ 17,786,950**			**$ 26,920,280**			**$ 19,114,090**			**$ 15,242,670**	**$ 79,063,990**	
		CONTRIBUTIONS						**$ (1,877,050)**			**$ (2,045,030)**			**$ (1,563,640)**			**$ (3,246,370)**	**$ (8,732,090)**	
		NET DISTRIBUTION						**$ 15,909,900**			**$ 24,875,250**			**$ 17,550,450**			**$ 11,996,300**	**$ 70,331,900**	
Substation Area	**Transmission Requirements (Codes 800, 900, 1000, & 1100)**																		
		Description	**Voltage (kV)**	**Conductor**	**Length (miles)**														
Forest Lake	820.02	Forest Lake to Pinon (rough terrain -1.5 factor on unit cost)	115 (Initially as 69kV)	477 ACSR	14.03			$ -			$ -	$ 227,250	14.03	$ 3,188,400			$ -	$ 3,188,400	Carryover
Ojo Amarillo	820.03	Extension to NAPI Frenchfry Factory	115 (Initially as 69kV)	477 ACSR	8.00			$ -	$ 200,000	4.00	$ 800,000	$ 200,000	4	$ 800,000			$ -	$ 1,600,000	Carryover
Burnside	820.04	Pine Canyon to TW-Klagetoh Substation	115	336 ACSR with OPGW	3.20	$ 165,000	3.20	$ 528,000			$ -			$ -			$ -	$ 528,000	Completed
Bitahoochee/Indian Wells	820.05	Bitahoochee to Dilcon	115 (Initially as 69kV)	954 ACSR	14.00						$ -			$ -	$ 196,900	14.00	$ 2,756,600	$ 2,756,600	Carryover
Burnside Transmission	820.06	Burnside Transmission to Burnside Junction substation	115	954 ACSR	1.26						$ -	$ 189,300	1.26	$ 238,600	$ -		$ -	$ 238,600	Carryover
		Contributions from TW and NAPI						$ (528,000)			$ (800,000)			$ -			$ -	$ (1,328,000)	
								$ -											
Burnside	920.02	Burnside Transmission and Switching Station, (4) Bkr Ring Bus, 115:69 kV transformer	115:69 30/40/50 MVA			$ 4,000,000	1	$ 4,000,000			$ -			$ -			$ -	$ 4,000,000	Completed
Dennehotso	920.03	Replace Existing 69kV 2-way Switch	69					$ -			$ -	$ 50,000	1	$ 50,000			$ -	$ 50,000	On-going
Kayenta	920.04	Laguna Creek, Upgrade 69kV Switch	69					$ -			$ -	$ 50,000	1	$ 50,000			$ -	$ 50,000	Completed
Coalmine	920.05	Pine Canyon Switching Station	115			$ 2,000,000	1	$ 2,000,000			$ -			$ -			$ -	$ 2,000,000	Completed
Forest Lake	920.06	Forest Lake New line bay	115 (Initially as 69kV)				1	$ -			$ -	$ 350,000	1	$ 350,000			$ -	$ 350,000	Carryover
		Contributions for Pine Canyon Project				$ -		$ (2,000,000)			$ -			$ -			$ -	$ (2,000,000)	
Rock Point	1000.12	69 kV Voltage Regulator Station, Install Voltage and Current Monitoring Equip. - SCADA	69			$ 50,000	1	$ 50,000			$ -			$ -			$ -	$ 50,000	Completed
Kayenta	1000.13	Upgrade Protection and Control Equipment				$ 1,500,000	1	$ 1,500,000			$ -			$ -			$ -	$ 1,500,000	Completed
LHV	1000.14	Upgrade Protection and Control Equipment & Add Isolating Switches				$ 75,000	1	$ 75,000			$ -			$ -			$ -	$ 75,000	Removed
Cudei	1000.15	Upgrade protection						$ -	$ 90,000	1	$ 90,000			$ -			$ -	$ 90,000	Completed as part of 420.11
Coalmine	1000.16	Install 115kV Tap, 2 Breakers and Metering & Upgrade Protection and Control Equipment				$ 1,400,000	1	$ 1,400,000			$ -			$ -			$ -	$ 1,400,000	Completed
Long House Valley	1000.17	Install 2-230:69 kV 15/20/25 MVA Transformers, oil circuit breaker									$ 3,000,000			$ 3,000,000				$ 6,000,000	Completed
Kayenta	1000.18	Replacew 3-230 kV oCRs with new SF6 breakers, upgrade protection and control equip.									$ 1,250,000			$ 1,250,000				$ 2,500,000	On-going
	1104	Ordinary Replacements (Transmission Poles)				$ 3,500	25	$ 87,500	$ 3,700	25	$ 92,500	$ 3,900	25	$ 97,500	$ 4,100	25	$ 102,500	$ 380,000	
			Total Transmission Requirements					**$ 7,112,500**			**$ 4,432,500**			**$ 9,024,500**			**$ 2,859,100**	**$ 23,428,600**	
Generation Requirements (Code 1200)																			
								$ -			$ -			$ -			$ -	$ -	
			Total Generation Requirements					**$ -**			**$ -**			**$ -**			**$ -**	**$ -**	
			Total System Requirements					**$ 23,022,400**			**$ 29,307,750**			**$ 26,574,950**			**$ 14,855,400**	**$ 93,760,500**	
								$ 23,022,400			$ 29,307,750			$ 26,574,950			$ 14,855,400		

Appendix D

Budget Code	Amendment#	Description	Part of RUS Loan Package	Not Part of RUS Loan Package	Project Status
104	1	Design and Construct Photovoltaic Systems	$2,997,000		Completed
420.11	2	New Cudei Substation 115:24.9 kV transformer & Breaker	N/A		
	3	Remove Shiprock#3 and Cudei Substations	N/A		
520.34	4	Coalmine Substation Mobile set-up	$150,000		Completed
1000.13	5	Kayenta 230 kV Substation - Upgrade	$1,500,000		Completed
	6	Budget Codes reassignemnet	N/A		
	7	Change the descreption from AMR to AMI	N/A		
1000.14	8	LHV- 230 kV Substation - Upgrade	$6,000,000		Completed
420.08	9	NAPI Potato Processing Plant Substation ($2,750,000.00)	$1,350,000		Carryover
820.03	10	Transmission Line extension to NAPI ($1,600,000.00)	$435,200		Carryover
1000.13	11	Kayenta 230 kV Substation – replace three 230 kV breakers	$2,500,000		On-going
704.06	12	Distribution Feeder Monitoring, Control and Automation	$9,983,130		Carryover
704.07	13	69 kV bi-directional metering	$175,000		Completed
520.35	14	Gray Mountain Substation addition	$100,000		Completed
520.36	15	Navajo Substation changes	$200,000		Completed
320.41	16	Cove to Cove Pump House Feeder Upgrade	$200,000		Carryover
320.44	17	Red Valley High School to Community Water Well feeder upgrade ($450,000.00)	$150,000		Completed
320.45	18	Sanostee (Hwy 491 to rodeo ground) Feeder Upgrade ($450,000.00)	$150,000		On-going
608.01	19	Kayenta Peabody Trailer Park URD replacement- Phase 1	$150,000		Carryover
608.02	20	Kayenta Peabody Trailer Park URD replacement- Phase 2	$150,000		Carryover
608.03	21	Kayenta- KYUSD High School URD replacement	$350,000		Carryover
615.01	22	Broadband network utilizing fiber optic ($22,992,905.00)		N/A	
	23	Request to change and correct the budget codes		N/A	
	24	Extending the current work plan period to July 31, 2013		N/A	
704.05	N/A	AMI Project ($11,000,000.00)		$6,500,000.00	On-going
520.25	N/A	Coalmine T3 upgrade (12/16/20 MVA, 115:24.9kV)		$1,000,000.00	Carryover
1200.01	25	400 KW Diesel Back-up Generator for Chinle NNGE Facility		$250,000	Completed
1200.02	26	401 KW Diesel Back-up Generator for Hogback NNGE Facility		$250,000	Completed
520.37	27	Replace Nenahnezad Substation Transformers		$150,000	Completed
320.43	28	Cudei to Shiprock #2 Substation feeder upgrade		$1,056,275	Completed
1000.17	29	SR-WAPA 115 kV CT's Replacement		$75,000	Removed
1300.01	30	New Dilkon Vehicle shop		$278,832	Completed
1300.02	31	New Crown Point Sub Office Building and renovation of existing building		$2,283,414	Completed
615.01	32	Broadband network utilizing fiber optic ($37,830,679.80)		$11,290,958	On-going
420.11	33	New Upper Fruitland Substation		$2,600,000	Completed
220.31	34	New distribution feeder from UF to UF commercial development site		$325,000	Completed
1200.03	35	Two (2) -1250 KW Diesel Back-up Generators for Upper Fruitland NNGE Facility		$900,000	Completed
600.01	36	650 KW back-up UPS system for UF NNGE Facility		$300,000	Completed
320.42	37	N9010 (1) Pine Springs Road – Relocate Feeder		$1,297,920	Completed
1300.03	38	New Network Operation Center Building		$520,173	Completed
1300.04	39	New Data Center Building ($2,303,466.00)		$1,836,466	Completed
1200.04	40	Four (4) -1250 KW Diesel Back-up Generators for NOC & Data Center		$1,800,000	Completed
600.02	41	Four (4) -650 KW back-up UPS system for NOC & Data Center		$1,200,000	Completed
420.12	42	New Twin Arrow Substation		$2,500,000	Completed
1200.05	43	Six(6) - 750 KW Diesel Back-up Generator for Twin Arrows NNGE Facility		$2,000,000	Completed
600.03	44	Two (2) each 300 KVA and 50 KVA UPS system for TA NNGE Facility		$400,000	Completed
220.33	45	New URD distribution feeder TA Sub to TA Casino		$1,640,000	Completed
220.32	46	Cudei to Red Valley new distribution feeder		$1,297,920.00	Carryover
520.42	47	Digital Surveilliance Systems		$500,000	Carryover
615.02	48	Fiber optic addition between FD to WR & Coalmine to Hunter's point		$668,700	Carryover
220.34	49	Red Valley (Phase II) distribution feeder extension		$185,786.70	Completed
520.26	50	Houck Substation Upgrade - add a new 15/18/22 MVA 115X69:24.9/14.4 kV Transformer		$1,750,000.00	Carryover
320.46	51	Houck Substation to Prefered Sands plant feeder upgrade, 10.0 miles #4 to #4/0		$800,000.00	Carryover
320.47	52	Houck Substation to Sanders, AZ feeder upgrade, 8.0 miles #1/0 to #4/0		$680,000.00	Carryover
615.03	53	New Towers & MW Links (Broad Band - LTE)		$13,013,540.00	Carryover
220.35	54	Dennehotso to Babyrocks 3-ph Distribution underbuilt		$830,400.00	On-going
		Total	**$26,540,330**	**$60,180,385**	

Appendix D

NAVAJO TRIBAL UTILITY AUTHORITY
AN ENTERPRISE OF NAVAJO NATION

PUBLIC NOTICE

Navajo Tribal Utility Authority ("NTUA") will be holding a public meeting at 9:00 am on Friday, October 05, 2012 in the Sky Room at the NTUA Headquarters Building in Fort Defiance, Arizona. At this meeting, NTUA will consider public comments on its Integrated Resource Plan (IRP). This Integrated Resource Plan, which is required by Western Area Power Administration (WAPA), details NTUA's power resource plan for the next five years. The Integrated Resource Plan will be available to the public five (5) days prior to the meeting. Written comments regarding the Integrated Resource Plan will be accepted any time prior to or at the meeting. Public comments will be presented to the Management Board for review and approval.

For more information call Srinivasa ("Veni") Venigalla, P.E, Electrical Engineering Department at 928-729-6281.

Appendix E

NAVAJO TIMES

PUBLIC NOTICES

PUBLIC MEETING NOTICE
Navajo Tribal Utility Authority
An Enterprise of the Navajo Nation

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